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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,569	08/20/2003	Gary J. Zyhowski	H0004903	6634

7590 05/18/2007
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EXAMINER

ALEXANDER, LYLE

ART UNIT	PAPER NUMBER
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1743

MAIL DATE	DELIVERY MODE
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05/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/644,569

Applicant(s)

ZYHOWSKI ET AL.

Examiner

Lyle A. Alexander

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is directed to leak detection in the preamble but no reagents to accomplish these detections are recited. From reading the disclosure, the Office understands the "dye precursor" is the indicator. Claiming the "dye precursor" as the indicator or reacting with the chemical to indicate leak detection could clarify the claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 3-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (USP 5,447,688) in view of Derwent 1985-090152.

Moore teaches a leak detector(10) comprising a test strip(12) attached to a gas permeable membrane(28). The test strip(12) contains the appropriate indicators and developers to provide a colorimetric indication of a chemical leak.

Moore is silent to the claimed "microcapsules" and the claimed support materials and indicators.

Derwent 1985-090152 that it is desirable to incorporate the reagent into microcapsules to gain the advantages of a higher contrast image with lower reagent concentrations.

It would have been within the skill of the art to modify Moore (USP 5,447,688) in view of Derwent 1985-090152 and incorporate the indicator into microcapsules to gain the above advantages.

The court decided In re Leshin (125 USPQ 416) "Mere selection of known plastics being on the basis of suitability of intended use, would be entirely obvious; and in view of 35 USC 103 it is a wonder that the point is even mentioned". The Office maintains all of the polymer support materials presently claimed are well known in the art. Polymers are desirable for their lightweight, low cost and inert properties. It would have been within the skill of the art to further modify Moore and use the claimed polymers as supports to gain the above advantages on the basis of their suitability of intended use.

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one that has well known and predictable results. The choice of a particular reagent for detection of an analyte of interest (e.g. leaked chemical) is a result effective variable having the well-known and expected result of detection. It would have been within the skill of the art to further modify Moore, and use the claimed reagents to detect the claimed "chemical" as optimization of a result effective variable.

Response to Arguments

Applicant's arguments filed 2/28/07 have been fully considered but they are not persuasive.

Applicants traverse the 35 USC 112 second paragraph rejections explaining the chemical sequence leading to colorimetric leak detection. The Office understands there is colorimetric determination of a leak. The issue the Office has with the claim language is that the preamble is not fulfilled. Clarification could be achieved by adding in claim 1 line 4 after "material and a"—leak detecting—. The same language should be used in both the preamble and body of the claim.

Applicants state Moore teaches a fugitive emission detector that relies upon a chemical reaction between the emitted chemical and the reagent. Applicants' states the instant invention differs from Moore because the leaked chemical do not react with the indicator. Rather, the instant invention employs the leaked chemical as a solvent that facilitates the interaction of the dye and developer. These remarks are not commensurate in scope with the pending claims. The claims require a colorimetric reaction resulting from a leaked chemical which is indistinguishable from the teachings of Moore.

Applicants state Moore fails to teach the claimed combination of the dye precursor and the developer on a support material. The Office maintains Moore teaches all of the reagents necessary for the colorimetric detection of the leaked chemical on a support material and is indistinguishable from the instant claims.

Applicants state the method of the instant invention is completely different because Moore requires the leaked chemical as an analyte in the colorimetric indication

reaction. Again the Office maintains these remarks are not commensurate in scope with the pending claims. The claims require interaction of the leaked chemical with the test strip to produce a colorimetric reaction which is indistinguishable from Moore.

Applicants traverse the combination of Moore in view of Derwent stating Derwent fails to teach encapsulation of the claimed dye and precursor. Derwent was applied to teach encapsulation of chemicals is known and desirable. The Office maintains the rejections of record are proper.

If Applicants could show in a timely and convincing manner the claimed color forming compositions and dye precursors are incapable of reacting with the leaked chemical, such claims of this scope may overcome the art of record.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A. Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lyle A Alexander
Primary Examiner
Art Unit 1743

A handwritten signature in black ink, appearing to be 'Lyle A. Alexander', written in a cursive style.